Springtails

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Description

Springtails are tiny insects that live in areas of high humidity. Their name comes from their ability to use a projection on their abdomen to propel themselves into the air. They vary in body shape from elongate to globular. Depending on the species, they vary in color from black to gray to white, while others are red, orange, blue, violet or purple.

Distribution and Habitat

Most springtails dry up and die quickly without high humidity. Thus, they are found in habitats such as rotting logs, decaying vegetation, rich organic soil, compost piles and flowerpots. Some can tolerate the lower humidities found in buildings or in the upper parts of flowering plants. They occur by the hundreds of thousands in most lawns, but because they are so tiny, they are rarely noticed. Occasionally, they can be found in "drifts" on agricultural land where they have been blown by the wind. Some kinds of springtails are active on the surface of snow on warm days in the winter. These are often called snow fleas.

Life Cycle

The springtail life cycle begins when eggs are laid in a proper habitat. These insects have a simple metamorphosis, which means they molt each time they increase in body size. There are no larval or pupal stages. Unlike other insects that have attained their full size by sexual maturity, springtails continue to molt after maturity. The total number of molts can be as many as 50. Springtails eat decayed organic matter and get most of their nutrients from bacteria and fungi. Springtails are an important part of many ecosystems because as they pass the organic matter through their gut, it is broken down into smaller pieces. This creates a greater surface area for fungi and bacteria to attack, and the nutrients in the organic matter are recycled more quickly. Some kinds of springtails eat pollen and soft tissue of green plants, but this does not seem to be extensive enough to cause concern. A few are predators on tiny soil organisms such as rotifers.

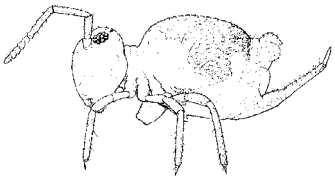
Control

Most of the time springtail populations do not require control. They are a natural part of the environment and are generally more of a nuisance than a serious pest problem. Exceptions might include commercial mushroom and earthworm production, and occasional cases were large numbers are found in homes or businesses.

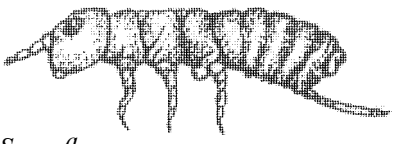
Around the home, large swarms of springtails can be found floating on pools of water, particularly after a long period of wet weather. This is because the ground has become so waterlogged that oxygen is no longer available and the insects must come to the surface to breathe. In their random springing to avoid the saturated soil they land in the water and drown.

High organic soil that is kept moist through frequent watering can build up high populations of springtails. In these cases populations can be managed by changing the watering schedule. Other times, if problems are associated with organic mulches, it may be worthwhile to replace the mulch with something less attractive to springtail populations, especially where high populations are entering homes or buildings.

Springtails in a home or businesses invade from outside or breed in damp places such as flowerpots, window sills, bathtubs and showers. If they invade from outside, they will probably die from desiccation in the house and control efforts should focus on reducing their entry or by treating or reducing potential habitat near the building. If they develop in decaying wood or accumulations of organic matter around windows, bathtubs or



Round-type springtail



Snow flea

Elongate-type springtail

showers, then remove the cause of the moisture, refinish or replace rotting wood and remove accumulations of organic matter to eliminate the problem. Populations of springtails associated with flowerpots are usually too small for concern, but occasionally populations can explode and become a nuisance. When this happens consider changing watering schedules, replanting using a different planting mix or using a chemical treatment.

If control is needed, insecticides containing bifenthrin, cyfluthrin, deltamethrin, carbaryl, lambda-cyhalothrin, malathion or permethrin can reduce populations. Read labels carefully and select a product appropriate for the site to be treated. In loose material such as soil or mulch, mix the chemical into the infested material for best control. Some insecticides are toxic to earthworms. The safest method for controlling springtails in earthworm beds is to move the worms to fresh bedding material.

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